

Regional Differences in Toyo University Students' Cultural Identifications

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The fourth in a series of papers in this journal regarding the cultural identifications of Toyo University students following the Great East Japan Earthquake, this article examines regional differences. Results indicate that, although Japanese and gender identifications remained the two strongest cultural identities of the 935 university students surveyed in the 2011 survey, both weakened after the disaster. Conversely, being an English speaker and having a global identity remained the two lowest ranking identities, with respondents identifying more with these international identity indicators after 3/11. Differences between the genders regarding global and English speaker identities did not change greatly. However, respondents from the Tohoku region contrasted with people from other regions regarding Japanese speaker and regional cultural identifications. Tentative conclusions can be offered with respect to a stronger sense of affiliation with regional groups, particularly regarding the Tohoku area. Such indications of possible changes to cultural identities of Japanese people following the Great East Japan Earthquake prompted further research in this area and underline the importance of greater awareness of students' cultural identifications.

Key Words: *Great East Japan Earthquake, cultural identities, regional differences*

1. Introduction

1.1 The Great East Japan Earthquake

The official name of the disastrous earthquake of March 11, 2011 is the Great East Japan Earthquake (Ministry of Foreign Affairs of Japan website, 2011), but this has been commonly referred to as the Tohoku-Kanto Earthquake as Tohoku and Kanto are the two regions of Japan which suffered worst regarding loss of life, injury, and radioactive contamination, as well as shortages of electricity, transportation, food, and fuel. There is little doubt that Tohoku experienced the lion's share of this suffering, but it also must be recognized that people in Kanto have also suffered in all of the above ways. In comparison to these two regions, the rest of Japan has been relatively unaffected.¹

Within Tohoku, generally it is the coastal areas that have suffered the most; and within Kanto, parts of Ibaraki and Chiba prefectures have been subjected to more damage than most other areas. These events were, and their effects continue to be, disasters on a major scale. The loss of life and scale of destruction were not confined to the Tohoku region (literally, Northeast region) of Japan as many prefectures outside the region also suffered loss of life and various forms of damage from this catastrophe. Even still, the scale of destruction in Tohoku was enormous. According to the Japanese National Police Agency, as at June 9, 2013, the death toll was 15,883 dead (4,673 in Iwate, 9,537 in Miyagi, and 1,606 in Fukushima), with 2,656 people still reported missing (Japan, National Police Agency website, 2013). In addition, the Cabinet Office of the Japanese Government reported 83,951 evacuees at shelters as at June 14, 2011 (Japan, Cabinet Office website, 2011).

1.2 Regional Effects

The huge scale of the disaster meant that many people in different parts of Japan have personally experienced the effects of it. In the first week or two after the earthquake, everyday supplies in some prefectures were very limited. Contributors to a book of personal experiences compiled in the second week after the earthquake (Sherriff, 2011) wrote of facing gasoline, electricity and food shortages (such as Yoko Kobayashi, a resident of Abiko in Chiba Prefecture). Likewise, the author, who was living in Kawagoe, Saitama at the time, could not obtain petrol, water, or many kinds of foodstuffs, nor use the public train system for several days. On top of this, people were subject to ill-informed and in many areas unpredictable power outages,² which meant no electricity or water, closed businesses, and stopped traffic lights. During that time, the author could sense the emotional stress in those around her and certainly felt it herself. At the same time, she also experienced both a stronger sense of community with some of her friends and neighbors, as well as more distancing from others, as survival-type instincts came to the fore regarding petrol, food or other daily essentials. At the time, the difficulties the author was experiencing reminded her of her grandmother's stories of going without daily essentials during wartime to support those fighting in battle. This is one of the reasons why she was aware that the sacrifices people in Kanto were making were essential for the health, emotional well-being, and in some cases the very survival of large numbers of people spread throughout a vast and isolated area in Tohoku who were

suffering terribly - both physically and emotionally - including her sister-in-law's family who had evacuated to Sendai City Hall. From email communication³ with said sister-in-law, the author perceived that the experiences of this family probably had a strong effect on their cultural identities and since it was likely that many other people were similarly affected, this provided her with the motivation to explore possible changes to the cultural identities of people in Japan.

In reality, people living in Tokyo also had a rude awakening to the fact that things they had previously taken for granted could no longer be counted on. On March 23, the Tokyo Metropolitan Government advised people not to use tap water for making infant formula as it had exceeded radiation limits for infants, which prompted a run on bottled water at supermarkets (The Japan Times, 2011). This advice was later withdrawn but concerns over radiation reaching Tokyo have yet to be alleviated following a number of concerning reports, such as radioactive iodine levels 1,250 times above the maximum level allowable detected in seawater (Japan Times, 2011). Further examples and more detailed background information are provided in Ogawa (2011) and Ogawa (unpublished).

It is quite conceivable that such traumatic memories in the minds of so many people are likely to influence the future mindset of the people of this nation. This possible long-term shift in the national psyche is likely to affect the way many Japanese people view many aspects of the world around them. In fact, it is possible that it has affected the very sense of who they are and their connections with the world – in other words, their cultural identities.

2. Methodology

2.1 Participants, Instrument, and Procedure

The participants for this study were 941 university students in the Kanto region of Japan. Six students were removed from the analysis carried out in July 2011 – just a few months after the disaster - by means of a Cultural Identification Questionnaire because they failed to complete it, leaving a total of 935 usable questionnaires. The Cultural Identification Questionnaire (see Appendix for English translation) was distributed in Japanese on a single A4 sheet of paper with a demographic section at the top, followed by two columns of lists of 10 possible cultural identifications thought to be most applicable to the respondents and useful for analysis in this research project. This paper examines the last six identities listed on the questionnaire – those related to region of origin, gender, Japanese, global, as well as

Japanese and English speaker identifications. The first four identities listed are examined in Ogawa (2011).

The cultural identities were selected on the basis of being able to create a continuum that could be analyzed. In other words, the cultural identity of Japanese was thought to be the easiest to endorse and thus would define one end of the continuum; whereas, on the other end of the continuum, English Speaker was thought to be the most difficult cultural identity to endorse for Japanese university students. Students were required to rank these 10 possible cultural identifications before and after the Tohoku Kanto Earthquake⁴ on March 11, 2011. These were self-determined rankings about how they prioritized their own cultural identities. The column on the left was designated as being for cultural identification rankings before the triple disasters, and the column on the right designated for ranking of the same cultural identities after. Student responses were collected from the respondents with the cooperation of several university lecturers from two universities in the Kanto region, all of whom administered the questionnaires to willing respondents in their classes. The respondents were informed about the general purpose of the study and followed the written instructions⁵ on the questionnaire form itself. The questionnaire took approximately ten to fifteen minutes to complete.

2.2 Analysis

The design of the questionnaire was such that it provided rank-order data. Rank-order data, however, cannot be used to specify the true differences between students (Hays, 1988) because the distances between students on a continuum of cultural identification cannot be assumed to be interval. In order to achieve an interval level of measurement, rank-order data must be first transformed into interval data using a statistical procedure such as a Rasch analysis (Wright & Stone, 1979).

The students' responses to the Cultural Identification Questionnaire were analyzed using the Rasch partial credit model (Andrich, 1978) implemented by Winsteps (Linacre, 2004). The Rasch partial credit model estimates each cultural identity separately and thus creates individual ranking scales for each cultural identity. The students' responses to the Cultural Identification Questionnaire are reported in logits, which in the context of this study measures the degree of difficulty students' experienced in identifying with each of the cultural identities pre- and post-March 11, 2011, according to how

they ranked them in each column of the questionnaire. The norm referenced choice of 0 logits represents the average level of difficulty that the students experienced ranking the different cultural identities. In other words, a cultural identity with a logit score below 0 logits means that students experienced little difficulty identifying themselves with that cultural identity. Conversely, cultural identities with a logit score above 0 logits means that students experienced more difficulty identifying themselves with that particular cultural identity.

3. Results

3.1 Overall differences pre- and post-March 11, 2011

First, the total data set was analyzed to discover the overall results. Table 1 shows the average level of difficulty all students surveyed had in identifying with each of the following six cultural identities: Region of Japan (of Origin), Gender, Japanese, Global, Japanese Speaker, and English Speaker. Please note that negative figures depict positive identification, while positive figures represent negative identification.

Table 1. Overall Differences Pre- and Post-March 11, 2011

	Pre	Post
Region of Japan	0.04	-0.11
Gender	-0.18	-0.12
Japanese	-0.39	-0.35
Global	0.19	0.16
Japanese Speaker	-0.03	-0.07
English Speaker	0.30	0.26

Bold font indicates a significant difference ($p < 0.01$) between the time periods.

From the above chart it is evident that there generally was a slightly weak association of 0.04 before the disasters of March 11, 2011 with respondents' respective regions of origin (or hometown). However, this changed to a moderately strong identification of -0.11 after the disaster. Respondents demonstrated a very strong gender identification of -0.18 before the earthquake. This dropped to a moderately strong identification of -0.12 afterwards. Being Japanese had the highest identity rating by far – a rating of -0.39. This dropped slightly to -0.35, without affecting its status as the most perceived relevant cultural identity surveyed.

Conversely, having a global identity was the second weakest identity surveyed. This very weak figure of 0.19 strengthened slightly

to 0.16 after the earthquake. A slight strengthening was also seen regarding the identification of these students as being speakers of the Japanese language. Starting at a slightly above average position (with regards to the items analyzed in this research project) of -0.03, this figure strengthened slightly to -0.07. This indicates that respondents identified more with being Japanese speakers after the disasters, albeit only slightly. The weakest link in cultural identification indicated by these respondents was that of being an English speaker. At 0.30 before the earthquake and 0.26 after, this was an even less likely identification than having a global identity. These two identities (being an English speaker and having a global identity) followed the same pattern. That is, a slight strengthening of a very weak identification.

3.2 Overall differences pre- and post-March 11, 2011 by region

Table 2 shows the average level of difficulty students had in identifying with each cultural identity, according to the geographical region of Japan they are from. Responses of respondents who indicated that they are from the Tohoku region ($n = 34$) are compared with those from other regions ($n = 853$). The responses of those who did not specify their region of origin ($n = 48$) are not included in this analysis. The Tohoku region is the only region that showed significant differences to the other regions, so it is shown separately here.

The most evident change is that respondents from the Tohoku region have adjusted from a moderately strong identification with their region to an extremely strong one. This dramatic increase in cultural identification has resulted in a figure of -0.59, which is greater than any other identified in this research project. It has even well surpassed the identification with being Japanese. Meanwhile, respondents from other regions (grouped together as there were no major differences between their answers) have also experienced major strengthening of their ties to the region of their hometown from a slightly low rating of 0.03 to a moderately high one of -0.11.

Table 2. Overall Differences Pre- and Post-March 11, 2011 by Region

	Tohoku		Other Regions	
	Pre	Post	Pre	Post
Region of Japan	-0.12	-0.59	0.03	-0.11
Gender	-0.18	-0.07	-0.18	-0.12
Japanese	-0.35	-0.29	-0.41	-0.37

Global	0.29	0.36	0.21	0.19
Japanese Speaker	0.09	0.1	-0.04	-0.07
English Speaker	0.47	0.5	0.3	0.27

Bold font indicates a significant difference ($p < 0.01$) between students from Tohoku compared to those from other regions.

Gender identification was initially strong overall (-0.18 for both groups) and this identification decreased. This decrease was more prominent for those respondents from Tohoku (to -0.07), than for those from other regions (-0.12). Likewise, identification with being Japanese has also decreased, but is still very high at -0.29 for Tohoku respondents and -0.37 for respondents from other regions.

In contrast, respondents demonstrated a very low identification with being global citizens before the earthquake, at 0.29 for Tohoku and 0.21 for other regions. This figure very slightly moved towards average (as far as this research project is concerned) to 0.19. However, respondents from the Tohoku region showed even less identification with being global citizens after the earthquake with an identification statistic of 0.36.

Another contrast between the respondents from Tohoku and those from other regions is cultural identification with being Japanese speakers. Respondents from Tohoku tended to indicate weak identification with being Japanese speakers both before (0.09) and after (0.1) the disaster. However, other respondents indicated a slightly strong identification of -0.04 before, which increased to -0.07 after.

Both groups of respondents show extremely weak identification as being English speakers both before and after March 11, 2011. Whereas respondents from other regions identified slightly more as being English speakers after the disaster (from 0.3 to 0.27), Tohoku respondents identified slightly less (from 0.47 to 0.5). As these are not large changes for either group, the cultural identification with being a speaker of the English language remains very low. Tohoku respondents in particular claim very weak identification with being English speakers.

4. Discussion and Conclusions

As evident in the results presented in this paper, of the ten cultural identities surveyed, that of being Japanese was the most important cultural identity to these respondents. Next was gender identification. Both of these identifications weakened after the events

of 3/11, but not enough to lose their statuses as the two top ranking identities. The lowest ranking identity was identifying with being an English speaker. Having a global identity was the second lowest.

However, the importance to these respondents of their respective regions increased after the disasters from a slightly low identification to rank almost the same as gender identification after. The author holds that this is worthy of note as it indicates a noticeable shift in cultural identifications of regional groupings. Perhaps the fact that both before and after the disaster Tohoku respondents on average did not identify with being speakers of the Japanese language as much as those from other regions is related to the issue of regional dialects of the Japanese language versus the standard form of the language.

The research results in this paper suggest an overall strengthening of ties to regional areas, especially by those respondents who are from the Tohoku region. It is conceivable that respondents in this survey who indicated they were from the Tohoku region are likely to have been in their hometowns at the time of the earthquake, as it occurred during their university spring vacations. It is likely that many of them may have experienced the disasters firsthand, perhaps lost friends and/or relatives, lost their parental homes and/or hometowns, and continued to hear firsthand news from friends and family members about the ongoing effects of the massive earthquake. It is interesting to note that respondents from the Tohoku region demonstrated that they felt higher levels of identification with Tohoku compared with students from other parts of the country even before the events of March 11, 2011. Further, after the earthquake their identification to the Tohoku region grew even stronger. Strong enough, in fact, for respondents originating from Tohoku to identify far more with being from Tohoku than any other cultural identity surveyed - even that of being Japanese. Meanwhile, students from other regions did not feel particularly strong ties to their region of origin before the disaster, but did afterwards.

Further surveys did not show the extreme regional differences⁶ as found in the survey of July 2011 reported above. Although this dramatic finding appears to have perhaps been fleeting, possible long-term effects of the current youth of Japan experiencing the Great East Japan Earthquake and the regional differences found in this survey cannot be dismissed. Limitations to this research include issues relating to the nature of cultural identities, the timing of this research project, and applicability to the general population. For further information regarding these limitations, please refer to Ogawa (2013).

As time progresses, it will be interesting to see how the cultural identifications of the population of young people in Japan will continue to change.

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¹ Perhaps slogans such as Japan Post's "Ganbaro Tohoku" (Hang in there, Tohoku) more accurately reflect the cultural identifications of the Japanese people at this time than ones such as Tsukuba Express' "Ganbaro! Nippon" (Hang in there! Japan). However, the author believes that over time possible changes to cultural identifications of a significant portion of the Japanese population could affect the country as a whole in the future.

² These power outages lasted for a few hours at a time, usually once or twice a day, and in many areas were unpredictable, both as for when they would happen and also whether they would happen at all that particular day. For example, in the weeks following the disaster the city the author was living in was listed in three of the four groups allocated

for rotating power outages and even in the more detailed breakdown into suburbs her area was listed in two, which meant that there were not many hours of the day that she could count on an electricity supply.

3 On the 16th of March, the aforementioned sister-in-law expressed thanks in an email to the author for the support the compulsory power cuts in Kanto were providing (being able to recharge her mobile phone to communicate with friends and relatives was just one example). In a further email the following day, she wrote of the terror her children had felt during four nights of nervous tension and fear in a strange place, encouraging the author to support her own children during the evening blackouts they were experiencing at the time. She also wrote of her chilling realization of the value of energy resources and how she had taken the comfortable lifestyle she had lived up to the time of the disaster for granted.

4 As explained in the Introduction, the Great East Japan Earthquake has commonly been referred to as the Tohoku Kanto Earthquake .

5 These instructions were in Japanese, along with the rest of the questionnaire.

6 As reported in Ogawa (unpublished), which, unlike the papers in this series, presents overall trends from analysis of the total dataset collected over the three years from 2011 to 2013.

Appendix: Cultural Identification Questionnaire (English Translation)

University Students' Cultural Identification Rankings and the Tohoku Kanto Earthquake

Faculty of Study: _____ Year of Study: **1st / 2nd / 3rd / 4th** Gender: **Male /Female**
 What region of Japan are you from? **Hokkaido / Tohoku / Kanto / Chubu / Kinki / Chugoku / Shikoku / Kyushu and Okinawa / Not from Japan**

This survey is designed to observe the effect that the Tohoku-Kanto Earthquake has had on university students' cultural identities. Please rank the importance to you of the following cultural identities - both now and before March's disasters in the Tohoku and Kanto areas of Japan. Please write ALL numbers **from 1 to 10** in both columns.

BEFORE March 11, 2011

AFTER March 11, 2011

_____ a student from XX Faculty

_____ a student from XX Faculty

_____ a XX year student

_____ a XX year student

_____ a XX University Student

_____ a XX University Student

_____ a graduate of XX High School

_____ a graduate of XX High School

_____ a person from XX region

_____ a person from XX region

_____ a male/female

_____ a male/female

_____ a Japanese person

_____ a Japanese person

_____ a Global citizen

_____ a Global citizen

_____ a Japanese speaker

_____ a Japanese speaker

_____ an English speaker

_____ an English speaker

I agree for this data to be used for research purposes.

Signature: _____

Date: _____ 2011

Thank you very much for taking part in this research project. Erina Ogawa,
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